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ABSTRACT

An "Early National Estimates" survey of higher education, part of the Integrated Postsecondary Education Data System, is reported. Estimates from the survey indicate the following: fall 1988 enrollments in colleges and universities increased almost 2.5% over fall 1987; overall, degree awards remained fairly stable in academic year 1988, although awards to women increased; revenues and expenditures increased 7% and 6%, respectively, in fiscal year 1988; enrollment at U.S. institutions of higher education reached an all-time high of 12.8 million in the fall of 1988, an increase of 2.4% over 1987; enrollment increases have occurred despite steady declines since 1981 of the U.S. population of 18- to 24-year-olds, which has traditionally comprised the largest share of student enrollment; the estimated number of degrees conferred in 1988 was not significantly greater than the year before; degree awards at the master's and doctor's levels were stable between 1987 and 1988, but for first professional degrees, there were declines in awards to men and in awards at public institutions; and the current funds revenues of institutions of higher education reached an estimated $116 billion in fiscal year 1988, and current funds expenditures and transfers totalled $113 billion. Tables and a discussion of survey methodology are included. (SM)

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NATIONAL CENTER FOR EDUCATION STATISTICS

Survey Report

December 1988

EARLY ESTIMATES

National Estimates of Higher Education: School Year 1988-89

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U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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Total enrollment at institutions of higher education in the United States reached a record high of 12.8 million students this fall, according to the "Early National Estimates" survey conducted by the National Center for Education Statistics. Estimates from the survey indicate that:

- Fall 1988 enrollment in colleges and universities increased almost 2 1/2 percent over fall 1987.
- Overall, degree awards remained fairly stable in academic year 1988, although awards to women increased.
- Revenues and expenditures increased 7 and 6 percent, respectively, in fiscal year 1988.

The "Early National Estimates" survey, now in its third year of operation, is part of the Integrated Postsecondary Education Data System (IPEDS). The survey, conducted by telephone, included a sample of more than 600 institutions of higher education, representing over 3,500 such institutions in operation in 1988. The data and findings in this report are *early estimates* and subject to sampling errors. Actual data for the entire universe of institutions will be available in the fall of 1989. (See the Survey Methodology for more information.)

Enrollment

Enrollment at institutions of higher education in the United States reached an all-time high of 12.8 million this fall--an increase of 2.4 percent over last year (table 1). The increase follows 2 years of stable enrollment. Figure 1 and table 4 provide trend data on enrollment for the past 10 years.

Men and women enrolled in significantly greater numbers this year than last year. Women's share of total enrollment remained stable at about 54 percent. Full-time and part-time attendance were up from last year, and more students enrolled at the undergraduate and postbaccalaureate levels.

Increases in enrollment occurred primarily at 4- and 2-year institutions in the public sector. The sizable increase in postbaccalaureate enrollment of nearly 4 percent also occurred predominantly at public institutions.

The enrollment increases have occurred despite the steady decline since 1981 of the U.S. population of 18- to 24-year-olds,[1] which has traditionally comprised the largest share of student enrollment. The number of 18- to 24-year-olds has been declining because of the lower birth rates in the years

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[1]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, "School Enrollment--Social and Economic Characteristics of Students: October 1986," Series P-20, No.429, and "United States Population Estimates by Age, Sex, and Race: 1980-1987," Series P-25, No. 1022.

following the large post-World War II baby boom (birth years 1947 through 1961). The baby boomers, who swelled the ranks of college enrollment beginning in the late 1960s, are now contributing to a steadily increasing population of older Americans.

The declining population of 18- to 24-year-olds was generally expected to contribute to overall decreases in college enrollment. However, while the number of 18- to 24-year-olds declined by almost 2.5 million between 1981 and 1986, their college participation rate rose slightly during that time, up almost 2 percent, resulting in stable enrollment figures for this age cohort overall. Also, older students enrolled in greater numbers. Between 1981 and 1986, the number of persons 25 years and older who were enrolled in college increased 11 percent.[2] The number of women enrolled in college is also up substantially since 1981. Table 5 provides trend data for college-age populations for the past 10 years.

Completions

The estimated number of degrees conferred (associate and higher) was 1,816,000 in academic year 1988, not significantly greater than the year before (table 2). However, the total number of degrees awarded to women was up slightly, due to an increase in awards to them at public institutions.

Undergraduate degrees

Associate degree awards showed no significant overall change from the year before, with total awards estimated at 430,000. The number of bachelor's degrees awarded (989,000) also remained stable.

Postbaccalaureate degrees

Awards at the master's and doctor's levels were stable between 1987 and 1988. For first-professional degrees, on the other hand, there were declines in awards to men, and in awards at public institutions.

Finance

The current funds revenues of institutions of higher education reached an estimated $116 billion in fiscal year 1988, and current funds expenditures and transfers totalled $113 billion (table 3). These increases represented changes of 7 percent in revenues and 6 percent in expenditures over the previous year, and were fairly consistent among public and private institutions.

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[2]Ibid, Series P-20, No. 429. All age cohorts above 24 are included.

Survey Methodology

The 1988 data are based on responses from the 651 institutions on the Early National Estimates Panel (a stratified random sample representative of the universe of 3,587 institutions of higher education in the United States in the 1988 academic year). Selected data items from the Integrated Postsecondary Education Data System (IPEDS) survey forms were requested by telephone from the Early National Estimates Representative of each sample institution between mid-October and mid-November 1988. The data were edited in light of previous years' survey responses (where available) and were resolved for questionable data.

The overall response rate for the 1988 "Early National Estimates" data collection was 97 percent. Weighted response rates for each type of data collected were: Enrollment--97 percent, Completions--97 percent, and Finance--90 percent. The sample weights were adjusted to account for nonresponse. The sample data were then weighted to national estimates using ratio estimation which uses previous years' data for the universe of institutions.

The "Early National Estimates" data are subject to both sampling and nonsampling error. While it is difficult to measure nonsampling error, the magnitude of sampling error can be indicated by the confidence interval for an estimate. For this sample at the 95 percent confidence level, total estimates are within 1 to 2 percent of what would have been obtained from a survey of all institutions of higher education (see text table). Data for the universe of all postsecondary institutions in the IPEDS surveys will be available in fall 1989.

This is the third year of "Early National Estimates" data collection. The 1986 "Early National Estimates" have been evaluated by comparing seven critical estimates with the final counts of institutions of higher education from IPEDS.[3] All final counts that were examined except one, total part-time enrollment, were within the 95 percent confidence intervals around the corresponding estimate.

For more information on the sample selection, data collection, estimation methodologies, or for individual standard errors for the sample estimates in this report, please contact the authors of this publication.

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[3]WESTAT, Inc., "Integrated Postsecondary Education Data System Early Estimates, Final Report," 1988, pp. 3-4.

Accuracy of selected data from the
"Early National Estimates" survey, 1987 and 1988

(In thousands)

Data item	Total estimate	95 percent confidence intervals*		
		Percent	Low	High
1987 Fall enrollment	12,544	±1.7	12,335	12,753
1988 Fall enrollment	12,849	±0.7	12,764	12,935
1986-87 degrees	1,813	±0.8	1,798	1,828
1987-88 degrees (associate and higher)	1,816	±0.7	1,804	1,828
1986-87 revenues	$108,288,120	±1.0	$107,233,625	$109,342,614
1987-88 revenues	115,502,540	±0.9	114,516,487	116,488,592
1986-87 expenditures	106,424,547	±1.0	105,322,017	107,527,077
1987-88 expenditures	112,764,927	±0.9	111,723,355	113,806,498

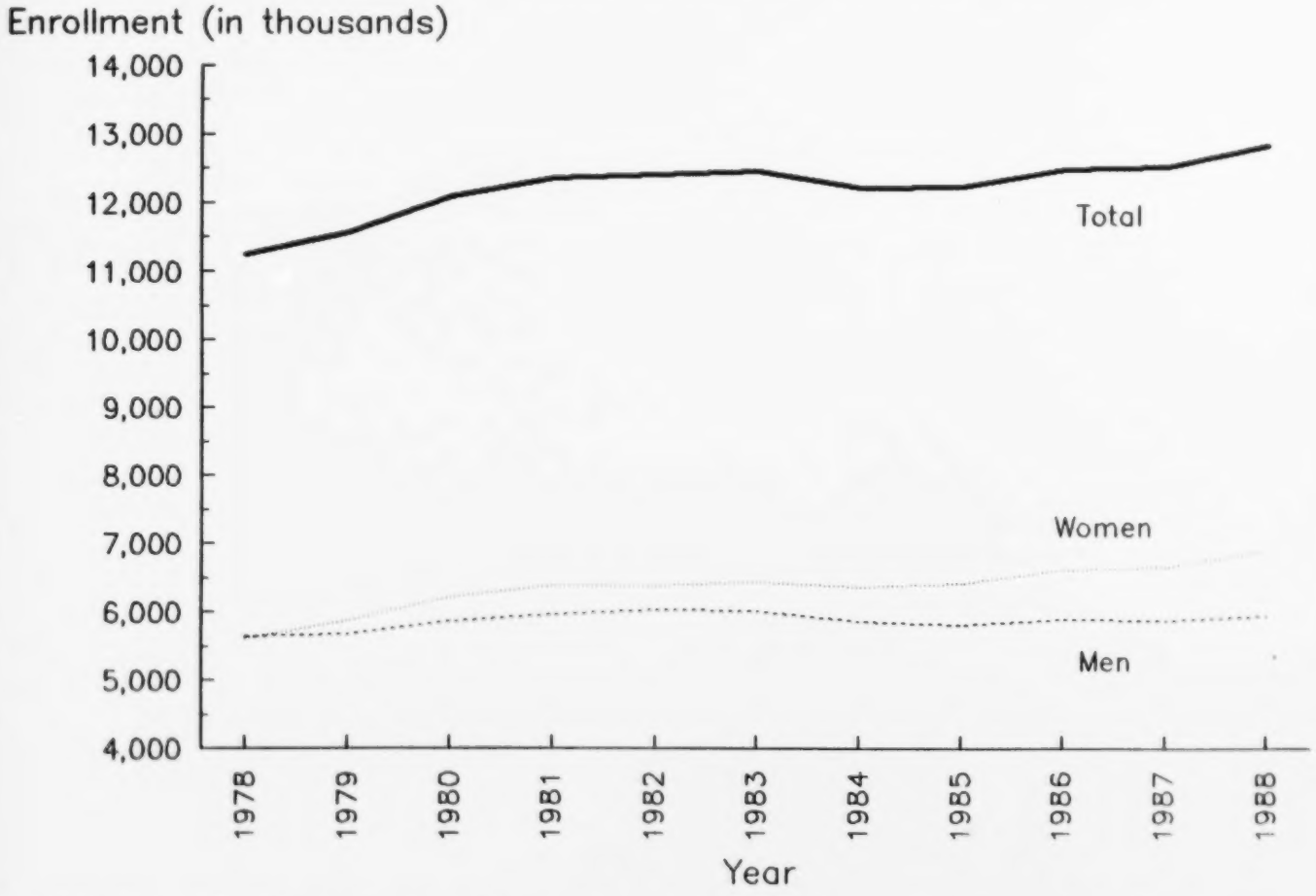
*The upper and lower confidence limits shown for each estimate represent the accuracy of these estimates in light of sampling error. Although the actual values of the items are not known for the universe of institutions, the upper and lower limits have been constructed so that the actual values fall between them at the 95 percent confidence level. These margins of error are also presented as a percent of the total estimate in the percent range column.

SOURCE: U.S. Department of Education, National Center for Education Statistics, data, Integrated Postsecondary Education Data System (IPEDS), "Early National Estimates" survey, 1987 and 1988.

Acknowledgments

NCES wishes to thank the institutions in the Early National Estimates Panel for providing the data on which these estimates are based. All those involved in the data collection, data processing, and report preparation worked quickly to release these early estimates. Preliminary data were reviewed by education association representatives. The authors gratefully acknowledge the comments and suggestions of the peer reviewers of the draft report--Joseph Popovich of the Maryland State Board of Higher Education; and Debra Gerald, John Gugel, and George Wade of NCES. Of special note is the contribution of the following NCES project members: Susan Broyles, Kerry Gruber, Austin Lin, Paul Mertins, and Summer Whitener.

Figure 1.--Fall enrollment in institutions of higher education: Fall 1978 to fall 1988



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment" survey, 1978 to 1986, and "Early National Estimates" survey, 1987 and 1988.

Table 1.--Estimates of enrollment in institutions of higher education, by attendance status, sex, and attendance level of student, and by control and level of institution: Fall 1987 and 1988

(In thousands)

Control and level of institution	Total (estimate)	Attendance status		Sex		Attendance level	
		Full-time (estimate)	Part-time (estimate)	Men (estimate)	Women (estimate)	Undergraduate (estimate)	Postbaccalaureate (estimate)
Total, 1988	12,849	7,371	5,478	5,946	6,904	11,137	1,713
Total, 1987	12,544	7,219	5,325	5,881	6,663	10,895	1,649
Percent change*	*2.4	*2.1	*2.9	*1.1	*3.6	*2.2	*3.9
Control							
Public							
1988	10,045	5,383	4,662	4,582	5,463	8,985	1,060
1987	9,706	5,206	4,500	4,468	5,238	8,706	1,001
Percent change*	*3.5	*3.4	*3.6	*2.6	*4.3	*3.2	*5.9
Private**							
1988	2,804	1,988	816	1,363	1,441	2,152	653
1987	2,838	2,013	825	1,413	1,425	2,190	648
Percent change*	-1.2	-1.2	-1.1	*-3.5	1.2	*-1.7	0.7
Level							
4-year							
1988	8,027	5,611	2,416	3,850	4,177	6,315	1,713
1987	7,816	5,461	2,355	3,802	4,013	6,167	1,649
Percent change*	*2.7	*2.8	*2.6	*1.3	*4.1	*2.4	*3.9
2-year							
1988	4,822	1,760	3,062	2,095	2,727	4,822	N/A
1987	4,728	1,759	2,970	2,078	2,650	4,728	N/A
Percent change*	*2.0	--	*3.1	0.8	*2.9	*2.0	N/A
Selected control/levels***							
Public 4-year							
1988	5,478	3,805	1,673	2,607	2,871	4,418	1,060
1987	5,268	3,671	1,596	2,546	2,722	4,267	1,001
Percent change*	*4.0	*3.6	*4.8	*2.4	*5.5	*3.5	*5.9
Private 4-year**							
1988	2,550	1,807	743	1,243	1,307	1,897	653
1987	2,548	1,789	759	1,257	1,291	1,900	648
Percent change*	--	1.0	-2.0	-1.1	1.2	--	0.7
Public 2-year							
1988	4,567	1,578	2,989	1,975	2,592	4,567	N/A
1987	4,439	1,535	2,904	1,922	2,516	4,439	N/A
Percent change*	*2.9	*2.8	*3.0	*2.8	*3.0	*2.9	N/A

--Less than 0.5 percent.

N/A = Not applicable.

*Only percent changes which are noted by an asterisk are statistically different from zero at the 95 percent confidence level. Percent changes were calculated on actual, not rounded, values. Caution should be exercised when collectively interpreting several percent changes noted by an asterisk. The confidence level that all of the percent changes being considered are statistically different from zero may be less than 95 percent.

**Estimates include nonprofit and for-profit institutions.

***Data for private 2-year institutions are not shown separately because the number of institutions sampled was small and the standard errors large.

NOTE: Details may not add to totals because of rounding. The 95 percent confidence intervals, expressed as a percent of the total estimates, are ± 0.7 percent for fall 1988 and ± 1.7 percent for fall 1987. The confidence interval percents for each estimate are available upon request. Postbaccalaureate includes graduate and first-professional enrollment.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Early National Estimates" survey, 1987 and 1988.

Table 2.--Degrees conferred by institutions of higher education, by control of institution and by level of degree and sex of recipient: Academic years 1986-87 and 1987-88

(In thousands)

Level of degree and sex of recipient	Total			Public			Private**		
	1986-87 (estimate)	1987-88 (estimate)	Percent change*	1986-87 (estimate)	1987-88 (estimate)	Percent change*	1986-87 (estimate)	1987-88 (estimate)	Percent change*
Total	1,813	1,816	--	1,235	1,238	--	578	578	--
Men	875	870	-0.5	586	578	*-1.3	289	292	1.0
Women	938	946	*0.8	649	660	*1.7	289	286	-1.1
Associate									
Total	427	430	0.5	356	354	--	72	75	5.0
Men	188	188	--	157	152	*-3.2	31	36	*16.4
Women	240	242	0.9	199	203	1.8	41	39	-3.8
Bachelor's									
Total	987	989	--	656	661	0.7	331	328	-0.8
Men	475	472	-0.6	318	316	--	157	156	-0.8
Women	512	517	1.0	338	344	*1.8	174	173	-0.7
Master's									
Total	291	292	--	171	172	--	119	120	--
Men	142	142	--	78	78	-0.8	64	64	--
Women	148	150	1.1	93	95	1.5	55	55	--
Doctor's									
Total	34	34	--	22	22	--	12	12	0.8
Men	22	22	1.5	14	14	--	8	8	3.6
Women	12	12	-2.8	8	8	-2.0	4	4	-4.4
First-professional									
Total	74	72	-3.0	30	29	*-1.5	44	43	-3.9
Men	48	46	*-3.6	19	18	*-2.6	29	28	-4.2
Women	26	25	-1.8	11	11	--	15	14	-3.3

--Less than 0.5 percent.

*Only percent changes which are noted by an asterisk are statistically different from zero at the 95 percent confidence level. Percent changes were calculated on actual, not rounded, values. Caution should be exercised when collectively interpreting several percent changes noted by an asterisk. The confidence level that all of the percent changes being considered are statistically different from zero may be less than 95 percent.

**Estimates include nonprofit and for-profit institutions.

NOTE: Details may not add to totals due to rounding. The 95 percent confidence intervals, expressed as a percent of the total 1987-88 degree estimates, are as follows: total degrees (associate and higher) (± 0.7 percent), associate (± 2.0 percent), bachelor's (± 1.1 percent), master's (± 1.5 percent), doctor's (± 1.5 percent), and first-professional (± 3.0 percent). The confidence interval percents for each estimate are available upon request.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Early National Estimates" survey, 1987 and 1988.

Table 3.--Current funds revenues and current funds expenditures and transfers in institutions of higher education, by control and level of institution: Fiscal years 1987 and 1988

(in thousands)

Control and level of institution	Current funds revenues			Current funds expenditures and transfers		
	Fiscal year 1987 (estimate)	Fiscal year 1988 (estimate)	Percent change*	Fiscal year 1987 (estimate)	Fiscal year 1988 (estimate)	Percent change*
Total	$108,288,120	$115,502,540	*6.7	$106,424,547	$112,764,927	*6.0
Control						
Public	69,834,289	74,231,161	*6.3	68,453,203	72,528,029	*6.0
Private**	38,453,831	41,271,378	*7.3	37,971,344	40,236,898	*6.0
Level						
4-year	94,810,388	101,580,261	*7.1	93,397,858	99,202,515	*6.2
2-year	13,477,732	13,922,279	*3.3	13,026,689	13,562,412	*4.1
Selected control/levels* **						
Public 4-year	57,673,675	61,536,769	*6.7	56,643,881	60,084,994	*6.1
Private 4-year	37,136,713	40,043,492	*7.8	36,753,978	39,117,521	*6.4
Public 2-year	12,160,614	12,694,392	*4.4	11,809,323	12,443,035	*5.4

*Only percent changes which are noted by an asterisk are statistically different from zero at the 95 percent confidence level.
**Estimates include nonprofit and for-profit institutions.
***Data for private 2-year institutions are not shown separately because the number of institutions sampled was small and the standard errors large.
NOTE: Details may not add to totals due to rounding. The 95 percent confidence intervals, expressed as a percent of the total fiscal year 1988 estimates, are ± 0.9 percent for revenues and ± 0.9 percent for expenditures and transfers. The confidence interval percents for each estimate are available upon request. These data are not directly comparable to the data from previous years presented in other NCES publications, such as the Digest of Education Statistics, from which Pell grant disbursements have been removed. Revenues have traditionally exceeded expenditures primarily because of the time lag in institutions' expenditure of revenues, which may not be in the same fiscal year in which the revenues are received.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Early National Estimates" survey, 1987 and 1988.

Table 4.--Enrollment in institutions of higher education, by sex and attendance status of student, and by control of institution: Fall 1978 to fall 1988

(in thousands)

Year	Total			Attendance status		Control	
	Total	Men	Women	Full-time	Part-time	Public	Private
1978	11,260	5,641	5,619	6,668	4,592	8,786	2,474
1979	11,570	5,683	5,887	6,794	4,776	9,037	2,533
1980	12,097	5,874	6,223	7,097	4,999	9,457	2,640
1981	12,372	5,975	6,397	7,181	5,190	9,647	2,725
1982	12,426	6,031	6,394	7,221	5,205	9,696	2,730
1983	12,465	6,024	6,441	7,261	5,204	9,683	2,782
1984	12,242	5,864	6,378	7,098	5,144	9,477	2,765
1985	12,247	5,818	6,429	7,075	5,172	9,479	2,768
1986	12,517	5,891	6,626	7,128	5,389	9,722	2,794
1987*	12,544	5,881	6,663	7,219	5,325	9,706	2,838
1988*	12,849	5,946	6,904	7,371	5,478	10,045	2,804

*Estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment" survey, 1978 to 1986, and "Early National Estimates" survey, 1987 and 1988.

Table 5.--College-age populations (ages 18 to 44): 50 States and D.C., 1978 to 1988

(In thousands)

Year (July 1)	18 years old	18-24 years old	25-29 years old	30-34 years old	35-44 years old
1978	4,247	29,622	18,683	16,280	24,437
1979	4,316	30,048	19,178	17,025	25,176
1980	4,243	30,350	19,804	17,822	25,868
1981	4,175	30,428	20,306	18,853	26,460
1982	4,115	30,283	20,865	18,876	28,115
1983	3,946	29,942	21,321	19,281	29,368
1984	3,734	29,391	21,660	19,769	30,619
1985	3,634	28,749	21,891	20,346	31,839
1986	3,562	27,967	22,132	20,848	33,144
1987	3,632	27,336	22,107	21,410	34,380
1988*.....	3,717	26,907	22,000	21,860	35,321

*Projected.

SOURCE: U. S. Department of Commerce, Bureau of the Census, Current Population Reports, "Population Estimates and Projections," Series P-25, (Middle Series), and unpublished projections.